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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,362	01/22/2002	Chio Fai Wong	33419-177855	9086
26694	7590	01/31/2005		
VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP P.O. BOX 34385 WASHINGTON, DC 20043-9998			EXAMINER RAYFORD, SANDRA M	
			ART UNIT	PAPER NUMBER
			1772	
DATE MAILED: 01/31/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/051,362

**Applicant(s)**

WONG, CHIO FAI

**Examiner**

Sandra M. Nolan

**Art Unit**

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-9, 13-15 and 17 is/are allowed.
- 6) ☒ Claim(s) 1-4, 11, 12 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claims***

1. Claims 1-9 and 11-17 are pending. Claim 10 has been cancelled.

### ***Drawings***

2. The examiner acknowledges receipt of three (3) sheets of formal drawings on 16 December 2004.

### ***Summary of Base Claims***

3. As best understood by the examiner the base, or independent, claims of the application can be summarized as follows:

Claim 1 covers a crystallized bottleneck of a polyester beer bottle, in which a flanged ring is provided to the bottleneck, the bottleneck has no machined screw thread and a 0.5 to 35 mm crystallized length of the bottleneck extends beyond the flanged ring.

Claim 5 covers a method for making a crystallized bottleneck of a polyester beer bottle, comprising:

- forming a bottle blank of a polyester through drying,
- ejecting the polyester material and shaping it through cooling to form an uncrystallized bottle blank,
- placing the uncrystallized blank for 24-72 hours in an air-conditioned environment,
- preheating a crystallizer for two hours or more prior to crystallizing the bottle blank,

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- loading a bunker with the uncrystallized blank,
- delivering the blank to a blank horse's head via a conveyor belt,
- sending a bottleneck portion of the bottle blank to said crystallizer to heat the bottleneck portion at a high temperature and crystallize it via an arbor transmission chain,

- simultaneously controlling the temperature of the uncrystallized portion of the blank body, so that the uncrystallized portion of the blank body is not affected by the temperature in the crystallizer,

- discharging the bottle blank through an output horse's head, and

- delivering the bottle blank to another conveyor belt to cool and shape it.

Claim 16 covers a bottle comprising:

- a polyester body having a neck extending from it, the neck including a flanged ring that is crystallized with a length of about 0.5 to 10 mm to a point beyond the ring, wherein the neck does not have a machines screw head.

Claim 17 covers a method for making a crystallized bottleneck of a polyester beer bottle, comprising:

- forming a bottle blank of a polyester through drying,
- ejecting the polyester material and shaping it through cooling to form an uncrystallized bottle blank,
- placing the uncrystallized blank for 24-72 hours in an air-conditioned environment,

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-preheating a crystallizer for two hours or more prior to crystallizing the bottle blank,

-loading a bunker with the uncrystallized blank,  
-delivering the blank to a blank horse's head via a conveyor belt,  
-sending a bottleneck portion of the bottle blank to said crystallizer to heat the bottleneck portion at a high temperature and crystallize it via an arbor transmission chain,

-simultaneously, while the bottle is crystallized in the crystallizer, the body of the bottle blank is protected from the high temperature of the crystallizer by using a cooling partition, controlling the temperature of the uncrystallized portion of the blank body, so that the uncrystallized portion of the blank body is not affected by the temperature in the crystallizer,

-discharging the bottle blank through an output horse's head, and  
-delivering the bottle blank to another conveyor belt to cool and shape it.

***Allowable Subject Matter***

4. Claims 5-9, 13-15 and 17 are allowed.
5. The prior art of record fails to teach or suggest processes for making crystallized bottlenecks of polyester beer bottles that employ all of the steps recited in base claims 5 or 17, as summarized above.

***Rejections Withdrawn***

6. The 35 USC 112 rejection of claims 5-10 for indefiniteness, as recited in section 5 of the 11 May 2004 office action ("the last office action"), is withdrawn in view of the amendments and arguments in the 07 September 2004 response ("the last response").

7. The 35 USC 103 rejection of claims 1-4, 11-12 and 6 as unpatentable over Tsukada et al (US 4,591,060), as set out in section 8 of the last office action, is withdrawn in view of applicant's arguments and amendments in the last response.

8. The 35 USC 103 rejection of claims 1-3, 11 and 16 as unpatentable over Nishihara et al (US 6,012,597), as expressed in section 9 of the last office action, is withdrawn in view of applicant's arguments and amendments in the last response.

***New Rejection***

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1-4, 11-12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horwege et al (US 4,933,135).

Horwege teaches parisons and preforms of PET (col. 1, lines 8-9) that are heated to crystallize the mouth end 2 (Figure 1, col. 2, lines 23-28). Thereafter, the heated mouth is placed in a mold, where a thread 5 (Figure 2, col. 2, lines 49-52) and a flange 6 (Figure 2, col. 2, lines 29-30) are formed. The closure configuration may be an annular bead instead of a thread (col. 1, lines 15-18). Horwege's parisons and preforms are to be used to make containers (col. 1, line 11).

"PET" is a well-known expression for polyethylene terephthalate.

Horwege's "mouth" corresponds to applicant's "bottleneck".

Parisons and preforms are deemed to be blanks.

Horwege fails to teach the crystallization length and the flange features recited in applicant's claims.

In the absence of convincing objective evidence to the contrary, the selection of the crystallization length on the mouth 2 and the details of the flange 6 of Horwege are deemed matters of engineering choice, depending upon the characteristics desired in the bottle's neck/shoulder area(s).

The use of the parisons and preforms of Horwege to make beer bottles relates to intended use and does not serve to distinguish them from parisons and preforms for making other polyester containers.

***Response to Arguments***

12. Applicant's arguments with respect to claims 1-9 and 11-17 have been considered but are moot in view of the new ground(s) of rejection.

***Citation as of Interest***

13. US 6,659,298 (to Wong) is cited of interest for teaching polyester beer bottles that have certain bottom features.

***Final Rejection***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action.

In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.




**Conclusion**

Any inquiry concerning this communication should be addressed to Sandra M. Nolan-Rayford, at telephone number 571/272-1495. She can be reached Monday through Thursday, from 6:30 am to 4:00 pm, ET.

If attempts to reach the examiner are unsuccessful, contact her supervisor, Harold Pyon, at 571/272-1498.

The fax number for patent application documents is 703/872-9306.

  
S. M. Nolan-Rayford  
Primary Examiner  
Technology Center 1700

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